

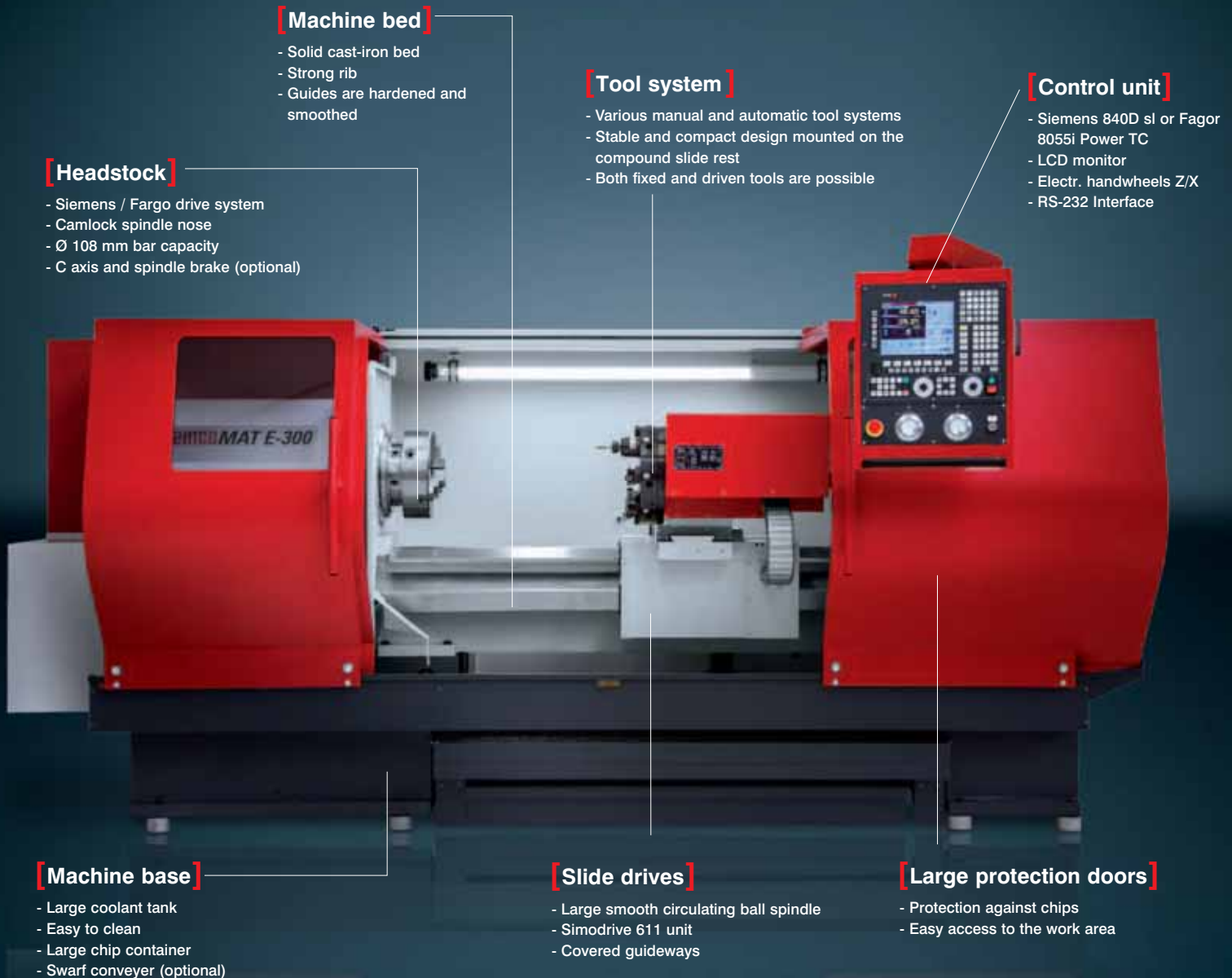
**[ E[M]CONOMY ]**  
means:



## Various duties efficiently solved EMCOMAT E-300 E-360 E-400

Cycle-controlled lathes with high-powered  
cutting performance and maximum precision

# EMCOMAT E-300



Picture shows E-300x1500 fitted with optional equipment

Whether used for production, equipment, tool or mold construction, sample or prototype manufacturing, or repair and maintenance work the EMCOMAT E-series is centered around your needs. Featuring the latest control technology from Siemens or Fagor and AC drives, the EMCOMAT provides an easy approach to complex machining tasks, thereby ensuring a significant reduction in production times and an increase in manufacturing quality.

# [Engineering]

## Highlights E-300

- Premium quality SIEMENS drive systems
- State-of-the-art control technology: Siemens 840D sl, Fagor 8055 TC
- Lash-free ball screws for perfectly smooth running and high precision
- Sturdy, cast-iron machine bed with strong ribbing
- Hardened and ground guideways
- Optimum accessibility to the work area
- Swivelling control panel
- Work area fairings with sliding doors
- Various machine lengths



Easy to use, specially designed for cycle-controlled lathes, easily understandable input masks and parameter input - dialogue-orientated and practical in applications, the Siemens Sinumerik 840D offers comprehensive functions for tool machines.



The FAGOR 8055 CNC offers optimal support for both methods of programming. ISO code language for production machining, and intuitively programmable for individual parts and limited production runs thanks to predefined cycles. The user and operator have the advantage of being able to quickly implement their experience and knowledge.



The chip conveyor is fully integrated into the machine, programmable and available for the various machine lengths. The coolant supply (6 bar, 20 l/min) is provided by a high-pressure pump through to the tool system.



High flexibility of the tool systems and machine equipment for implementing customer-specific requirements. The automatic tool systems operate with high stability, precision and reliability, and are easy to program.

# EMCOMAT E-360, E-400

## [Headstock]

- Dynamic, powerful main spindle
- modern Siemens drive system
- Camlock spindle nose with a large passage
- Pneumatic brake
- Swivelling C axis
- Two-speed gearbox for high torque

## [Large protection doors]

- Protection against chips
- Easy access to the work area

## [Machine bed]

- Solid cast-iron bed
- Strong rib
- Guides are hardened and smoothed

You will find the right machine for your production needs in our EMCOMAT E-series, which offers a selection of distances between centers ranging from 2000 to 6000 mm. Even the most difficult machining tasks become child's play. Thanks to solid machine construction and components of the highest quality and stability. ZF drive, Siemens drive systems and backlash-free circulating-ball spindles assure optimal quiet running and high precision, even for heavy-duty metal cutting.

### **[Tool system]**

- Various manual and automatic tool systems
- Stable and compact design mounted on the compound slide rest
- Both fixed and driven tools are possible

### **[Tailstock]**

- Stable construction
- MK 6
- Quill diameter 120 mm

### **[Control unit]**

- Siemens 840D sl or Fagor 8055i Power TC
- 11,4"-LCD monitor
- Electr. handwheels Z/X
- RS-232 Interface



Picture shows E-360 with optional equipment

### **[Slide drives]**

- Large smooth circulating ball spindle
- Simodrive 611 unit



# [Engineering]

## Control unit

- Advanced control technology
- Digital drive technology
- Electronic handwheels for the X-Z axis
- USB and Ethernet interface for easy network connection
- User-friendly interface for simple to complex programs
- Electrical documentation with E-Plan software



Siemens control "Sinumerik 840Dsi - Shop Turn - Manual Machine" (including the original Siemens cycles and functions) and the Siemens "SINAMICS S120" digital drive system. The powerful Sinumerik 840D sl CNC system for demanding solutions is efficient in terms of programming, installation, commissioning, and design technology, and innovative in terms of NC functionality, communication, operation, and openness.



The development and design of the CNC 8055 POWER targets both operators without extensive programming skills, as well as programming specialists with extensive knowledge of ISO code. The Fagor supports dialogue programming for very simple, intuitive input with the help of defined cycles. Intuitive access keys quickly provide links to variable cycles and functions. Each individual function and each cycle can be accessed via its own access key.

# [Options]

A variety of options and accessories are available for individual equipment. An extensive range of tool holders, various bed lengths, automatic quills, chip conveyors, quills, and much more.



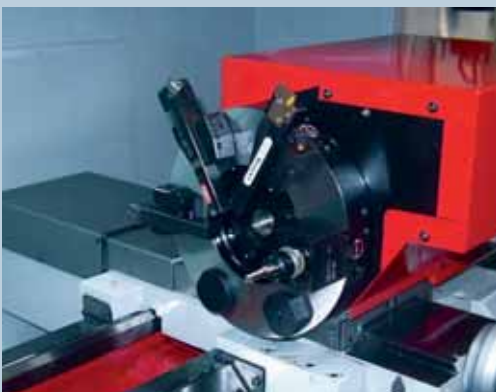
## **Clamping cylinder**

The hydraulic clamping cylinder and the swivel C axis with braking system allow for full CNC operation.



## **Tailstock quill**

For fast machining the hydraulic tailstock quill can be easily inserted and removed by means of an M command.



## **Tool turret**

A multitude of types and dimensions for efficient production are available for tool turrets and driven tools.



## **CAPTO tool holder**

With its fast and precise alternating system, the CAPTO tool holder offers more stability and higher repeat accuracy during machining.

# [Areas of application]

- Hydraulic/pneumatic components
- Motors and vehicle parts
- Mechanical engineering components
- Plain and roller bearing parts
- Conveying technology
- Fastening technology
- And other fields of application



## Double clamping devices

The large passage, measuring up to 205 mm (ASA-2/15"), and the use of a double-chuck that can be operated either manually or pneumatically, guarantee optimum processing of tubes, cylinders, and sleeves. The chip conveyor allows for longer runs in automatic mode, a higher coolant pressure and extraction of greater quantities of chips.



## Drill rod holder

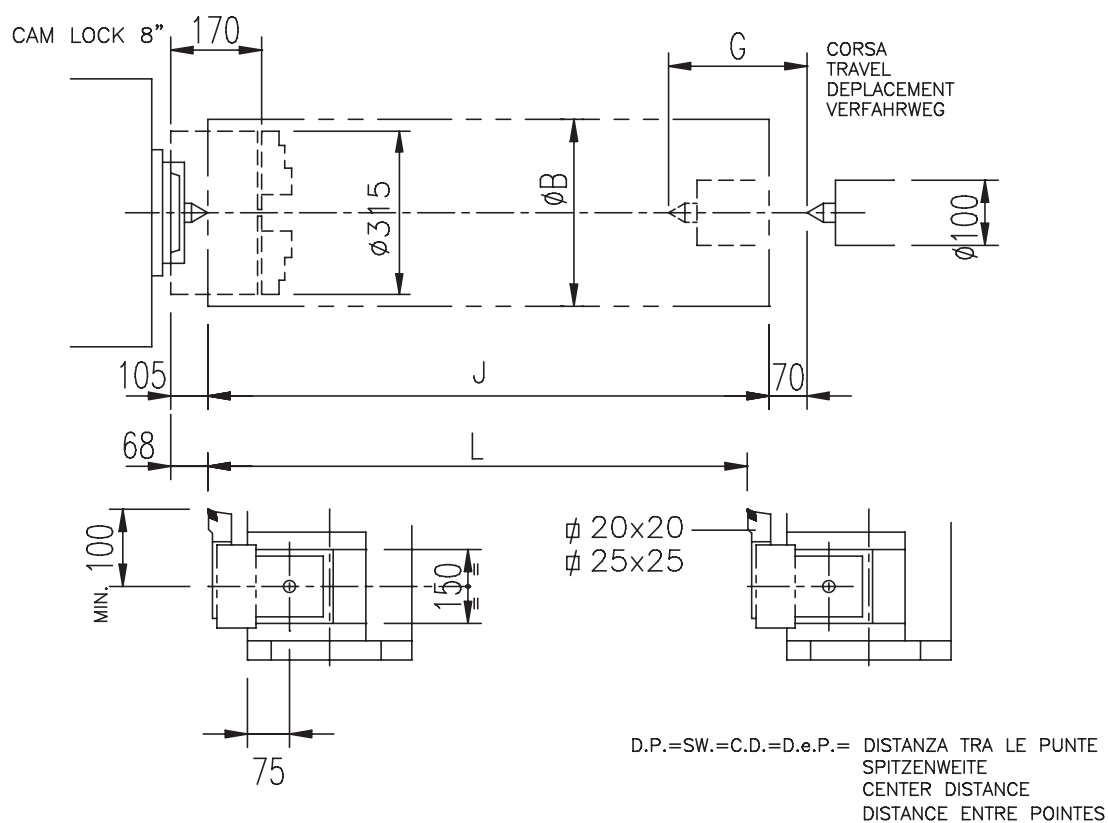
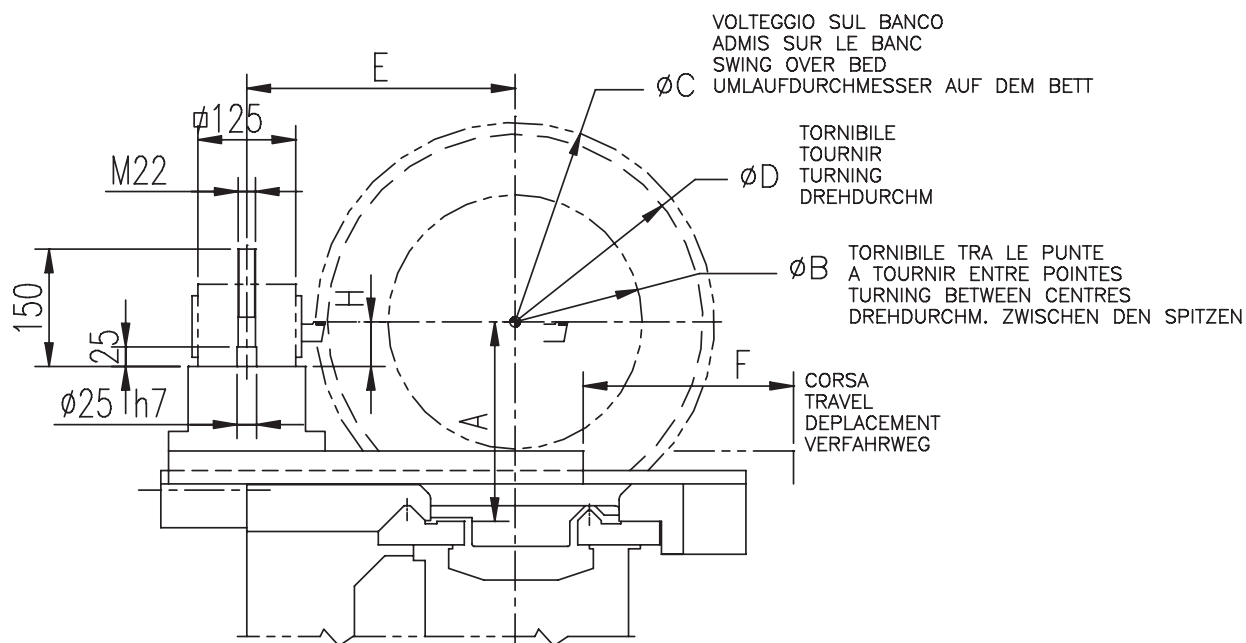
The removable drill rod holder allows complex machining operations to be completed without separate chucking.



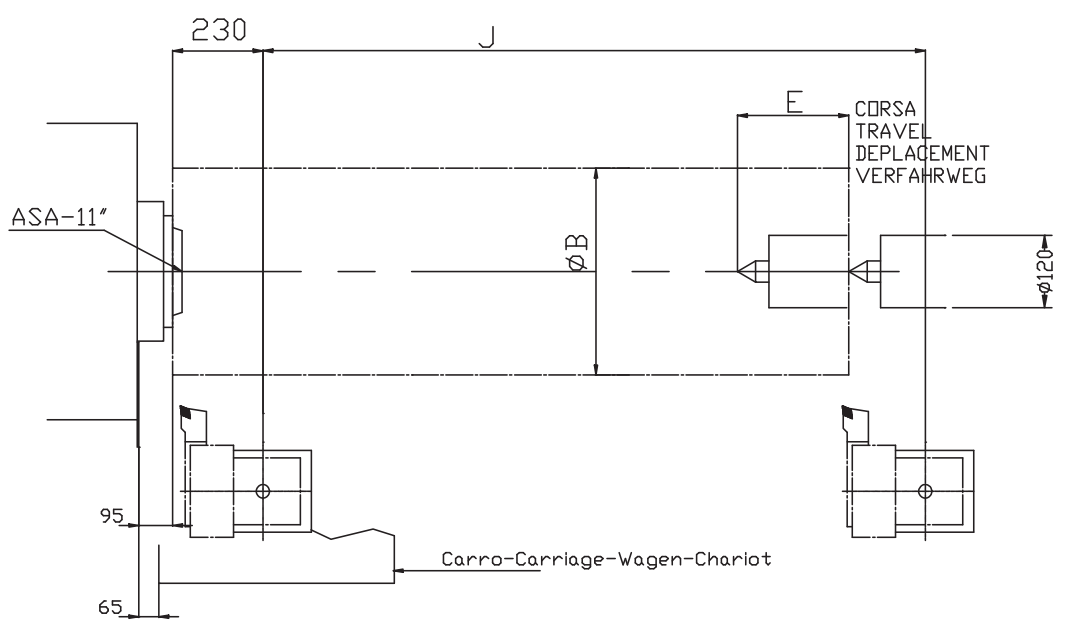
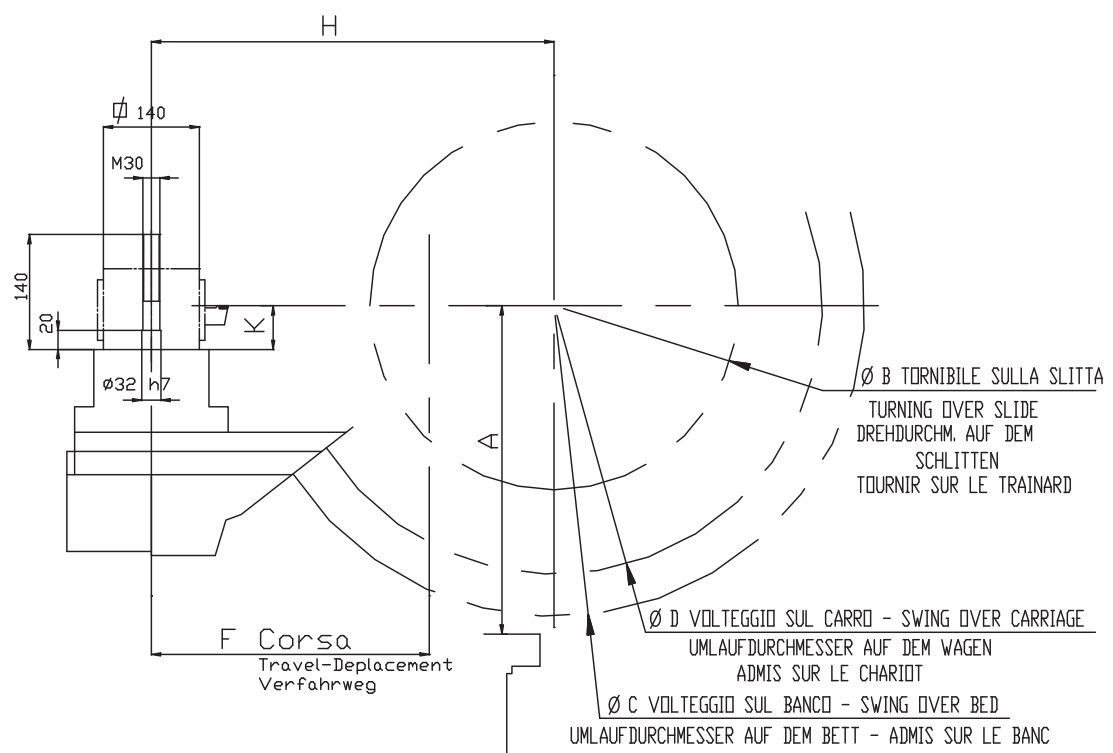
## Hydraulic steady rest (E-360-400)

The hydraulic steady rest and the large tip width make the EMCOMAT machines ideal for machining of rollers and cylinders.





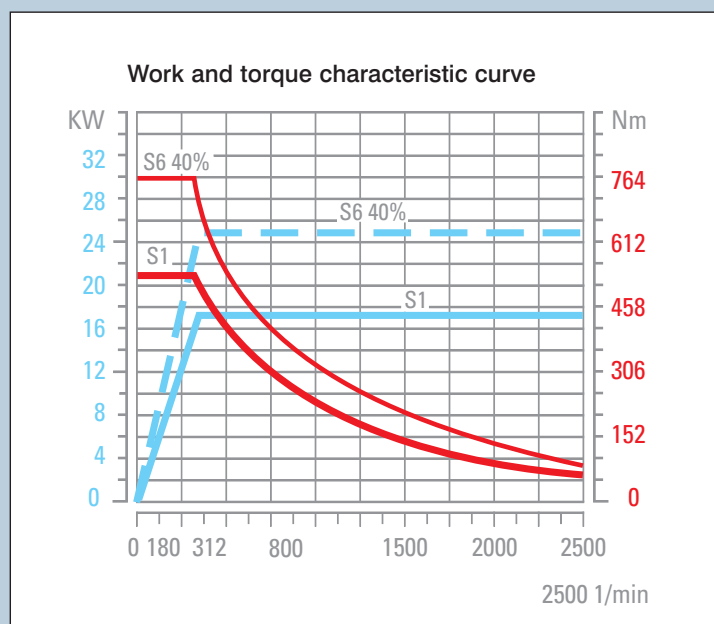
MOD.	A	B	C	D	E	F	G	H	J	L
300	275	340	570	480	340	320	220	50	D.P.	D.P.



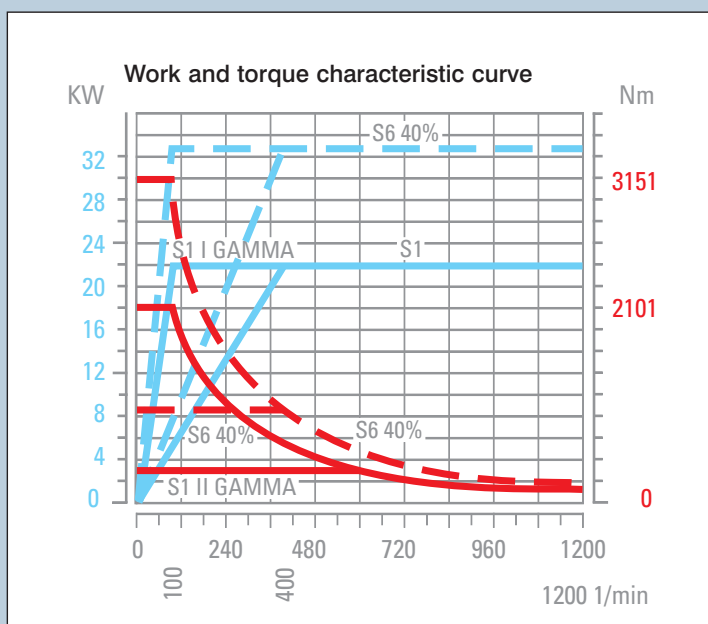
MOD.	A	B <sup>Ø</sup> <sub>1</sub>	C	D	E	F	J	H	K
360	380	480	810	700	220	520	1580-2080-3080 4080-5080-6080	520	60
400	430	560	900	800					

## Main spindle performance diagram

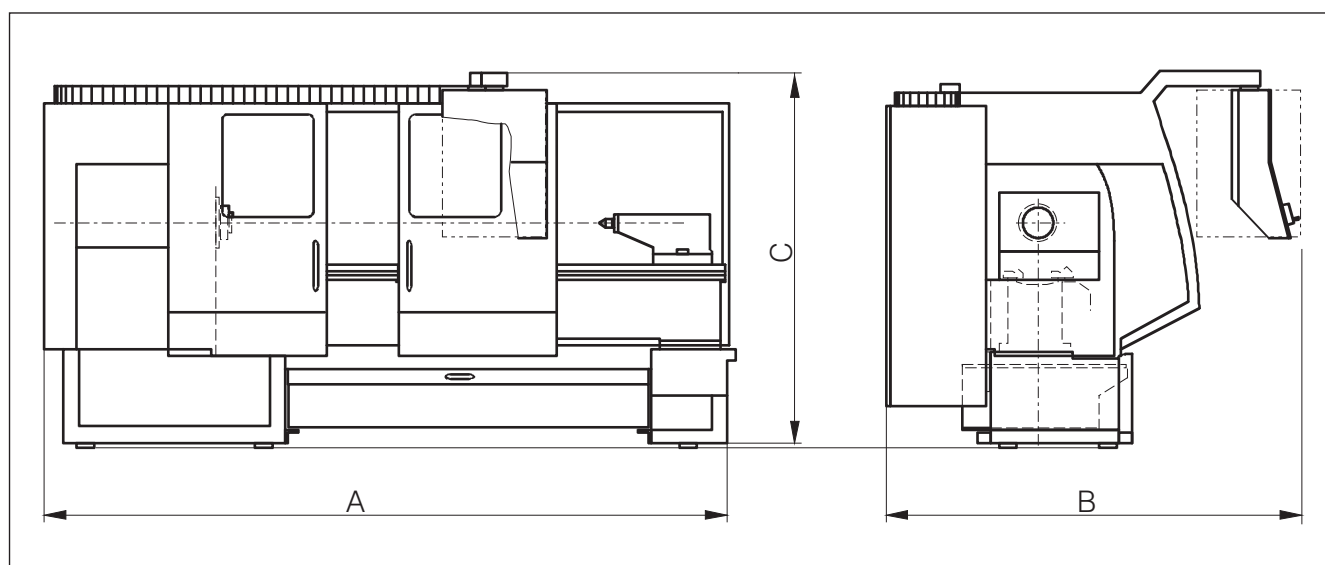
### EMCOMAT E-300



### EMCOMAT E-360-400



## Floor plan E-300 E-360 E-400 E-480



distance between centers		1500 mm					
EMCOMAT - E 300	A	3 950 mm					
	B	2 100 mm					
	C	1 878 mm					
distance between centers		1500 mm	2000 mm	3000 mm	4000 mm	5000 mm	6000 mm
EMCOMAT - E 360	A		5 060 mm		7060 mm		9060 mm
	B	-	2 470 mm	-	2 470 mm	-	2 470 mm
	C		2 070 mm		2 070 mm		2 070 mm
EMCOMAT - E 400	A		5 060 mm		7060 mm		9060 mm
	B	-	2 470 mm	-	2 470 mm	-	2 470 mm
	C		2 070 mm		2 070 mm		2 070 mm

chip conveyor always A + 1200 mm

Detail in millimeters

# [Technical data]



Designed for your profit

## EMCOMAT E-300 E-360 E-400

Work area	EMCOMAT E-300	EMCOMAT E-360	EMCOMAT E-400
Distance between centers	1500 mm (59.1")	2000 – 4000 – 6000 mm (59.1" – 236.2")	2000 – 4000 – 6000 mm (59.1" – 236.2")
Swing	275 mm (10.8")	380 mm (14.9")	430 mm (16.9")
Swing over bed	Ø 550 mm (21.7")	Ø 810 mm (31.9")	Ø 900 mm (35.4")
Swing over slide	Ø 340 mm (13.4")	Ø 480 mm (18.9")	Ø 580 mm (22.8")
Bed width, hardened HRC 50	420 mm (16.5")	500 mm (19.7")	500 mm (19.7")
Travel in Z	1500 mm (59.1")	2000 – 4000 – 6000 mm (59.1" – 236.2")	2000 – 4000 – 6000 mm (59.1" – 236.2")
Travel in X	310 mm (12.2")	520 mm (20.5")	520 mm (20.5")
Feed power X max.	1000 daN	1400 daN	1400 daN
Feed power Z max.	1500 daN	1400 daN	1400 daN
Rapid motion speed in X / Z	5 (8*) m/min (197 (315*) ipm)	5 (8*) m/min (197 (315*) ipm)	5 (8*) m/min (197 (315*) ipm)
Cross-slide width	250 mm (9.8")	286 mm (11.3")	286 mm (11.3")
Lathe tool cross-section	25 x 25 mm (0.98" x 0.98")	32 x 32 (40 x 40) mm (1.3" x 1.3") (1.6" x 1.6")	32 x 32 (40 x 40) mm (1.3" x 1.3") (1.6" x 1.6")
<b>Moving spindle</b>			
Spindle nose DIN 55029 Camlock	8	11	11
Spindle bore	Ø 108 mm (4.3")	Ø 153 mm (6.0")	Ø 153 mm (6.0")
Spindle front bearing (inside diameter)	Ø 160 mm (6.3")	Ø 235 mm (9.3")	Ø 235 mm (9.3")
Faceplate diameter (max.)	Ø 500 mm (19.7")	Ø 800 mm (31.5")	Ø 800 mm (31.5")
Maximum chuck diameter	Ø 315 mm (12.4")	Ø 500 mm (19.7")	Ø 500 mm (19.7")
Spindle rotational speed	0 – 2500 rpm	0 – 1200 rpm	0 – 1200 rpm
Speed control	stepless	stepless	stepless
Mechanical speed levels	1	2	2
<b>Drive motor</b>			
AC motor	infinitely variable	infinitely variable	infinitely variable
Performance at 40/100% duty cycle	25 / 17 kW (33.5 / 22.8 hp)	33 / 22 kW (44.3 / 29.5 hp)	33 / 22 kW (44.3 / 29.5 hp)
Max. torque at the main spindle	764 / 519 Nm	3151 / 2101 Nm	3151 / 2101 Nm
<b>Tailstock</b>			
Quill diameter	Ø 100 mm (3.9")	Ø 120 mm (4.7")	Ø 120 mm (4.7")
Inner quill taper	MK 5	MK 6	MK 6
Quill travel	220 mm (8.7")	220 mm (8.7")	220 mm (8.7")
<b>Power supply</b>			
Electricity supply	400 V/3~/PE	400 V/3~/PE	400 V/3~/PE
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Connected load	24 kVA	39 kVA	39 kVA
<b>Dimensions</b>			
Machine length	Sp.W. + 2160 mm (85.0")	Sp.W. + 3060 mm (120.5")	Sp.W. + 3060 mm (120.5")
Machine width	2130 mm (83.9")	2470 mm (97.2")	2470 mm (97.2")
Machine height	1840 mm (72.4")	2070 mm (81.5")	2070 mm (81.5")
Total weight	3600 kg	8100 – 10500 kg	8300 – 10700 kg



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